

ABSTRACT OF THE DISCLOSURE

A valve assembly has a movable valve element with a first face surface. A valve seat is provided having a second face surface for forming a face seal with the first face surface, wherein one of the first face surface and the second face surface includes a cavity sunk into the one face surface. The cavity has a peripheral bearing surface. An o-ring is inserted into the cavity and has an outer edge contacting the peripheral bearing surface. A retainer is secured into the cavity internally of the o-ring, the retainer having a sloped peripheral edge squeezing the o-ring against the peripheral bearing surface such that the o-ring is deformed to substantially fill the cavity between the peripheral bearing surface and the sloped peripheral edge. A portion of the o-ring extends out of the cavity above the one face surface for forming a seal between the first and second face surfaces.